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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,934	08/27/2003	Stuart B. Smith	009608.0113	4108

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EXAMINER

MOORE, MARGARET G

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,934

Applicant(s)

SMITH, STUART B.

Examiner

Margaret G. Moore

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 24 is/are pending in the application.
- 4a) Of the above claim(s) 10 to 17, 20 to 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 to 9, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

Art Unit: 1712

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1 to 9, 18 and 19, drawn to a prepolymer, classified in class 528, subclass 28.
 - II. Claims 10 to 17, 20 and 21, drawn to a polyurea, classified in class 528, subclass 28.
 - III. Claims 22 to 24, drawn to a method, classified in class 427, subclass 387.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Group I and Group II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a fabric treating composition or as a reactant in an epoxy or acrylate polymer composition and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Inventions of Group II and Group III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process of using that product, such as a process in which the polyol prepolymer and the polyisocyanate are reacted and subsequently applied to the surface of a substrate.

Art Unit: 1712

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Craig Belair on 5/10/05 a provisional election was made with traverse to prosecute the invention of Group I, claims 1 to 9, 18 and 19. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10 to 17 and 20 to 24 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Claims 1 to 9, 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1:

It is unclear what this claim encompasses since the prepolymer chain extender would seemingly be the reaction product of the amine and epoxy functional silicone, but as this claim is worded, the claim is drawn to a mixture of these components.

Clarification is required.

Claim 3:

This claim is incomplete in that "x", "y" and "z" are undefined. Also it is unclear what is attached to the terminal Si atoms at the two unfilled valences.

Claims 4 to 9:

The amounts of amine and epoxy functional silicone in the prepolymer is unclear. The Examiner assumes, though it is not clear, that the parts by weight is based on the total weight of the polyol prepolymer chain extender, but it is unclear what (for example) 50 parts by weight, based on the total weight of the polyol chain extender, or 900 parts by weight, based on the total weight of the polyol chain extender, means.

The phrase "parts by weight" is generally based on a fixed amount, such as 100 parts by weight. However it is unclear how a component of a reaction product can be present in the product in an amount of greater than 100 parts by weight.

Art Unit: 1712

Though not indefinite, it is redundant to define "x" twice in claims 6 to 8.

In claim 8 is also indefinite because polyaspartic ester is not an amine.

Claim 18:

Reference to an adduct in claim 18 is confusing since an amine, on its own, is not an adduct.

7. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

8. Claims 1, 3 and 4 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1, 3 and 4 of copending Application No. 10/839,889. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented. Note that the phrase "for a silicone modified polyurea" is a future intended use clause that does not distinguish the polyol prepolymer chain extender claimed from that in '889.

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

Art Unit: 1712

patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 2, 5, 18 and 19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2, 5, 36 and 37 of copending Application No. 10/839,889. Although the conflicting claims are not identical, they are not patentably distinct from each other because each of the limitations claimed are embraced by the claims in '889. For instance the amines in instant claim 2 are embraced by the amines in claims 2 of '889 (the only difference in the wording is the specific mention of primary and secondary aromatic amines rather than the generic and inclusive term "aromatic amines" in '889). The amount of epoxy functional silicone in instant claim 5 is completely embraced by the range in claim 5 of '889 and the amines in instant claim 18 are within the breadth of the amines in claim 36 of '889.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. The Examiner is unable to examine claims 4 to 9 for prior art purposes because she cannot determine the breadth of the claims, for reasons consistent with that noted supra. Again, it is unclear what these amounts mean.

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1712

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1 - 3, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Czech.

Czech teaches silicone block copolymers prepared by the reaction between an epoxy functional siloxane and a diamine. See for instance the copolymer structure on column 1, lines 55 to 60, and the reactants detailed on column 3, particularly lines 35 to 40. The terminal epoxy groups in the siloxane in Example 1 and the repeating dimethylsiloxane units meet the units in claim 3. The various diamines in Table 2 meet claim 2.

Example 1 performs the reaction between the epoxy siloxane at 80°C, which corresponds to 176°F, for a period of time of approx. 3 to 6 hours. This meets the time and temperature requirements of claim 18.

Note that patentees need not teach applicants' future intended use for the prepolymer to anticipate it.

15. Claims 1 to 3 are rejected under 35 U.S.C. 102(a) as being anticipated by WO 02/10255, as interpreted by the English language equivalent Herzig et al.

WO 02/10255 teaches the reaction product between an epoxy siloxane and a diamine. While the product is subsequently protonated, the reaction product is an isolated and stable intermediate polymer that anticipates that claimed. See for instance the abstract of WO 02/10255.

Particular attention is drawn to the teachings in Herzig et al., for instance on column 3, which teaches the reaction between a polyamine and an epoxy siloxane. Note the working examples, which react a siloxane having terminal epoxy groups and dimethylsiloxane groups meeting the structure in claim 3 with a diamine meeting claim 2. This anticipates the instant claims.

Art Unit: 1712

16. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/10255, as interpreted by Herzig et al.

WO, as interpreted by Herzig et al., does not specifically teach a reaction time. Column 12, lines 40 to 45, teaches temperature ranges that embrace that claimed. For instance the specifically delineated preferred lower temperature of 80°C is within the claimed range. While this excerpt fails to teach a specific duration for the reaction, note that the working examples use times that are consistent with that claimed. Example 1 reacts for 3 hours while Example 2 reacts for 24 hours. While these examples use a different temperature, it would have been obvious for one having ordinary skill in the art to use a temperature within the claimed range since such temperatures are taught as being operable by Herzig et al. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In this manner claims 18 and 19 are rendered obvious.

17. The remaining reference is cited as being of general interest. Guise et al. teach a reaction product between an epoxy siloxane and a diamine, but the reaction product is a cured coating rather than a prepolymer. DE 195 24 816 appears to make prepolymers that meet at least claims 1 to 3; however, since this reference is not readily available in the English language and it does not appear to be any closer to the claims than the reference cited supra, a rejection over this reference has not been made at this time. The Examiner is currently trying to obtain an English translation of this reference.

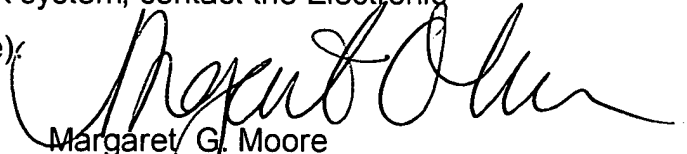
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone

Art Unit: 1712

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
5/11/05